



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

EXAMINER: Bret C. Hayes Docket No. 2973-A-34
APPLICANT: Napolez et al. Art Unit: 3644
SERIAL NO. 10/753,113 Confirmation No.: 5216
FILED: January 7, 2004 Date: November 7, 2005
FOR: Neck Motion Detector and Method for Bark Control Device

APPEAL BRIEF UNDER 37 CFR §§ 41.30 *et seq.*

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents

P. O. Box 1450

Alexandria, Virginia 22313-1450

Dear Sir:

The following is applicants' Appeal Brief pursuant to 37 CFR §41.37 for the above-identified patent application. The brief is accompanied by the required fee.

Real Party of Interest

The party in interest is the Assignee of entire right and title of the subject application,
Tri-Tronics, Inc.

Related Appeals and Interferences

There are no related appeals or interferences

Status of Claims

Claims 1 - 9 originally filed.

First Office Action:

Claims 1 - 9 rejected under §102(b) and §103.

Claims 1, 6 and 8 objected to due to informalities

Amendment A:

Claims 1 and 2 canceled.

Claim 3 amended.

Claims 4 and 5 original.

Claim 5 amended.

Claims 7 original.

Claims 8 and 9 amended.

Second Office Action:

Claims 3 - 9 remain in case.

All claims finally rejected.

Claims 3 - 9 are the subject of this appeal.

Status of Amendments

There are no amendments filed subsequent to the final rejection.

Summary of Claimed Subject Matter

The claimed subject matter is directed to a neck motion detector and method for bark control of dogs. Independent Claim 3 is directed to a collar-mounted electronic apparatus; Claims 4 and 5 depend from Claim 3. Independent Claim 6 is directed to a method for controlling vocalization by a dog and dependent Claim 7 depends from Claim 6. Independent Claim 8 is directed to a device for controlling vocalization by a dog and Claim 9 depends therefrom. The independent claims are thus Claims 3, 6 and 8. References to the specification and drawings in relation to the independent claims follows hereafter.

1 3. A collar-mounted electronic apparatus for control of barking by a dog,
2 comprising:

3 (a) a housing supported by a collar for attachment to the dog's neck;
4 [Figs. 1 and 2, reference 5]

5 (b) first and second stimulus electrodes in contact with the dog's skin are
6 connected to a surface of the housing for applying aversive stimulus control signals to the dog's

neck;

[Figs. 1 & 2, pg. 8, lines 16 et seq.; pg. 14, lines 3 & 4]

(c) a vibration sensor supported by the housing in contact with the dog's neck for sensing vibrations and generating vibration signals in response to vocalizing by the dog;

[Fig. 4-1, reference 30, pg. 10 lines 15 et seq.; pg. 17, lines 1-4]

(d) a controller in the housing having an input coupled to receive the signals produced by the vibration sensor,

[Fig. 3A, reference 19, pg. 9, line 15; Fig. 4-1, reference 33, pg. 11, line 5, pg. 15, line 10]

(e) a motion detector mounted in said housing and connected in substantially fixed relationship to the housing for producing a neck motion detection signal in response to a characteristic neck movement of the dog that characteristically accompanies barking by the dog;

[Fig. 3B, reference 40, pg. 6, line 1; pg. 15, lines 9 et seq.]

(f) the controller including output terminals for producing aversive stimulus control signals and having an input coupled to receive the neck motion detection signal and operative in response to the neck motion detection signal and signals from the vibration sensor to enable the controller to produce the aversive stimulus control signals; and

[Figs. 4-1, 4-2, reference 5C, 5B, 40, 30, pg. 5, line 16; pg. 6, lines 1-13]

25 (g) circuitry coupled to the controller to produce the aversive stimulus signals
26 between the first and second stimulus electrodes in response to the aversive stimulus control
27 signals.

[Fig. 4-1, reference 5C, 5B and circuit elements shown]

1 6. A method for controlling vocalization by a dog, comprising:

2 (a) supporting first and second stimulus electrodes against the dog's neck;

3 [Fig. 4-2, pg. 8, line 16 et seq.]

4 (b) using a vibration sensor for detecting vocalization by the dog and
5 determining if such vocalizing constitutes a valid bark and producing signals in response to such
6 valid bark;

7 [Figs. 6A and 6B, pg. 20, lines 2-9]

8 (c) connecting a motion detector in substantially fixed relationship to the
9 dog's neck for producing a motion detection signal in response to a characteristic movement of
10 the neck that characteristically accompanies vocalization by the dog; and

11 [Fig.3B, reference 40, pg. 6, lines 2 et seq.]

12 (d) operating control circuitry having a first input coupled to receive the
13 signals produced by the vibration sensor in response to a valid bark and a second input coupled
14 to receive the motion detection signal to produce aversive stimulus control signals in response to
15 the signals produced by the vibration sensor if a motion detection signal is received concurrently
16 with the signals produced by the vibration sensor.

[Fig. 4-1, reference 40, reference 30; Fig. 6A, reference 71, 76, pg. 15, lines 18 &
19, pg. 20, lines 2-9]

1 8. A device for controlling vocalization by a dog, comprising:

2 (a) means for supporting first and second stimulus electrodes against the
3 dog's skin;

4 [Figs. 1 & 2, reference 5, pg. 8, lines 16 et seq.; pg. 14, lines 3 & 4]

5 (b) a vibrations sensor for producing signals in response to vocalizing by the
6 dog;

7 [Fig. 4-1, reference 30, pg. 10, lines 15 et seq., pg. 17, lines 2-4]

8 (c) means for connecting a motion detector in substantially fixed relationship
9 to the dog's neck for producing a motion detection signal in response to a characteristic

10 movement of the dog's neck that characteristically accompanies vocalization by the animal; and

11 [Fig. 3B, reference 4, pg. 6, line 3 et seq.]

12 (d) means for operating control circuitry having a first input coupled to
13 receive the signals produced by the vibration sensor and a second input coupled to receive the
14 motion detection signal to produce aversive stimulus control signals in response to the signals
15 produced by the vibration sensor if a motion detection signal is received concurrently with the
16 signals produced by the vibration sensor.

[Figs. 4-1 & 4-2, pg. 15, line 18 et seq.; pg. 16, line 8]

Grounds of Rejection to be Reviewed on Appeal

The Examiner, in the first Office, rejected Claims 1-9 under 35 U.S.C. 102(b) as anticipated by the reference to Hollis 6,263,836. The Examiner also rejected Claim 5 under 35 U.S.C. 103 as being unpatentable over Hollis. Applicants canceled Claims 1 and 2 and amended the remaining claims by amending the independent Claims 3, 6 and 8.

The Examiner finally rejected the remaining Claims 3-9 under 35 U.S.C. 102(b) as unpatentable over Hollis and further rejected Claim 5 under 35 U.S.C. 102(a) as unpatentable over Hollis. This second action was Final. Applicants' appeal from the final rejection of Claims

3-9 as amended.

Argument

The Examiner has rejected Claims 3-9 under 35 U.S.C. 102(b) as being anticipated by 6,263,836 - Hollis. The Examiner states that the recitation of first and second electrodes and their respective contact with the dog's skin is irrelevant. The Examiner states "whether the electrodes are disclosed as being in contact with the dog's skin or not is irrelevant, as any protrusion extending toward the dog's neck would work its way down among the fur to the dog's neck, at least over time". It is respectfully submitted that this statement is not true. Applicants are unaware of any source of such information that would support that statement. Applicants' many years of experience with training collars for use on dogs indicates that reliance cannot be had on the "possible" contact with the dog's neck or contact "at least over time". Professional training, particularly of hunting dogs, that function semi-independently away from the trainer requires constant, reliable and appropriate electrical contact with the dog to transmit the aversive signal. The significant increase in resistance imparted by the dog's hair or air would radically affect the aversive stimulus and would therefore critically interfere with the proper training of the dog.

The Examiner, in rejection Claims 3-9 and specifically with regard to Claims 3 and 8, states that while Hollis does not recite a vibration sensor, that his recitation of a microphone is

the same as or the equivalent of the vibration sensor. The vibration sensor described by applicants as assembly 30 (and which is also described as typically including piezoelectric transducer under the dome shaped membrane 6), which is held against the dog's neck adjacent to the stimulus electrodes, conducts vibration as a result of the motions of the sound-induced waves occurring at the dog's neck. The dome shaped membrane 6 conducts vibration energy imparted by the dog to the membrane; it is difficult to visualize a "microphone" incorporating a dome shaped membrane in contact with a dog's neck that would act as a "vibration sensor" in the manner clearly described by applicants. It is respectfully submitted that a microphone such as that described by Hollis and used by him in a typical microphone mode, is not the same as or equivalent of the vibration sensor assembly including the piezoelectric transducer and dome shaped membrane of applicant. While the Examiner argues that if a dog were barking loudly and closely enough to the dog wearing the claimed invention, it would be questionable whether or not the device would sense sympathetic vibration occurring in the dog wearing the device. I suppose it could be argued that, given a strong enough bark from another dog, and given a position of the second dog close enough to the vibration sensor, that the vibration sensor would detect sound waves emanating from the dog. This unlikely scenario suggests that the vibration sensor as described by applicants is significantly different from that described in Hollis wherein the latter is merely a "microphone" positioned on the dog's back wherein sounds would obviously impinge on the microphone which would be unable to distinguish between the wearers barking and the adjacent dog's barking. It is also noted that applicants' claims require that not only the triggering barking occur but that the proper neck motion detection of characteristic barking motion occur simultaneously for the device to produce an averse stimulus signal (see

example Claim 3, subparagraph (f)).

Applicants respectfully submit that the claims, as amended, are distinguishable over the cited reference to Hollis and that the claims identified in this Appeal recite a patentable invention.

Claims Appendix

- 1 3. A collar-mounted electronic apparatus for control of barking by a dog,
2 comprising:
- 3 (a) a housing supported by a collar for attachment to the dog's neck;
- 4 (b) first and second stimulus electrodes in contact with the dog's skin are
5 connected to a surface of the housing for applying aversive stimulus control signals to the dog's
6 neck;
- 7 (c) a vibration sensor supported by the housing in contact with the dog's neck
8 for sensing vibrations and generating vibration signals in response to vocalizing by the dog;

9 (d) a controller in the housing having an input coupled to receive the signals
10 produced by the vibration sensor,

11 (e) a motion detector mounted in said housing and connected in substantially
12 fixed relationship to the housing for producing a neck motion detection signal in response to a
13 characteristic neck movement of the dog that characteristically accompanies barking by the dog;

14 (f) the controller including output terminals for producing aversive stimulus
15 control signals and having an input coupled to receive the neck motion detection signal and
16 operative in response to the neck motion detection signal and signals from the vibration sensor to
17 enable the controller to produce the aversive stimulus control signals; and

18 (g) circuitry coupled to the controller to produce the aversive stimulus signals
19 between the first and second stimulus electrodes in response to the aversive stimulus control
20 signals.

1 4. The electronic apparatus of claim 3 including circuitry configured to reset the
2 controller from a low-power operating mode into a normal operating mode in response to the
3 neck motion detection signal.

1 5. The collar-mounted electronic apparatus of claim 3 including a battery monitor
2 circuit coupled to a battery that powers the electronic apparatus, the battery monitor circuit
3 including an output coupled to a reset input of the controller to reset the controller to a non-
4 operative high impedance output mode, a first LED driver circuit having an input coupled to a
5 first LED driver output of the controller, the first LED driver circuit including a light emitting
6 diode having a first electrode coupled by a first resistor to the battery and a second electrode
7 coupled by the transistor to a reference voltage, the transistor having a control electrode coupled
8 by a second resistor to the battery, the control electrode being coupled to the first LED driver
9 output of the controller.

1 6. A method for controlling vocalization by a dog, comprising:

2 (a) supporting first and second stimulus electrodes against the dog's neck;

3 (b) using a vibration sensor for detecting vocalization by the dog and
4 determining if such vocalizing constitutes a valid bark and producing signals in response to such
5 valid bark;

6 (c) connecting a motion detector in substantially fixed relationship to the
7 dog's neck for producing a motion detection signal in response to a characteristic movement of
8 the neck that characteristically accompanies vocalization by the dog; and

9 (d) operating control circuitry having a first input coupled to receive the
10 signals produced by the vibration sensor in response to a valid bark and a second input coupled
11 to receive the motion detection signal to produce aversive stimulus control signals in response to
12 the signals produced by the vibration sensor if a motion detection signal is received concurrently
13 with the signals produced by the vibration sensor.

1 7. The method of claim 6 including operating the control circuitry to switch from a
2 low-power operating mode into a normal operating mode in response to the motion detection
3 signal.

1 8. A device for controlling vocalization by a dog, comprising:

2 (a) means for supporting first and second stimulus electrodes against the
3 dog's skin;

4 (b) a vibrations sensor for producing signals in response to vocalizing by the
5 dog;

6 (c) means for connecting a motion detector in substantially fixed relationship
7 to the dog's neck for producing a motion detection signal in response to a characteristic

8 movement of the dog's neck that characteristically accompanies vocalization by the animal; and

9 (d) means for operating control circuitry having a first input coupled to
10 receive the signals produced by the vibration sensor and a second input coupled to receive the
11 motion detection signal to produce aversive stimulus control signals in response to the signals
12 produced by the vibration sensor if a motion detection signal is received concurrently with the
13 signals produced by the vibration sensor.

1 9. The device of claim 8 including operating the control circuitry to switch from a
2 low-power operating mode into a normal operating mode in response to the motion detection
3 signal.

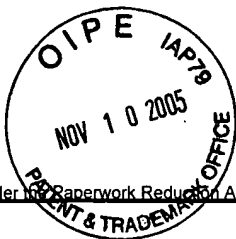
Respectfully submitted,

CAHILL, VON HELLENS & GLAZER P.L.C.

A handwritten signature in black ink, appearing to read 'William C. Cahill', with a long horizontal flourish extending to the right.

William C. Cahill
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Docket No. 2973-A-34



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TRANSMITTAL FORM

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Total Number of Pages in This Submission

17

Application Number	10/753,113
Filing Date	January 7, 2004
First Named Inventor	Francisco J. Napolez
Art Unit	3644
Examiner Name	Bret C. Hayes
Attorney Docket Number	2973-A-34

ENCLOSURES (Check all that apply)

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| <input checked="" type="checkbox"/> Fee Transmittal Form
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Incomplete Application
<input type="checkbox"/> Reply to Missing Parts
under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)
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Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Cahill, von Hellens & Glazer P.L.C.		
Signature			
Printed name	William C. Cahill		
Date	November 7, 2005	Reg. No.	19,742

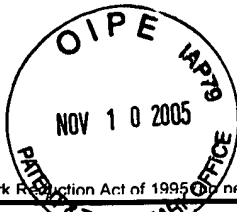
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Signature			
Typed or printed name	William C. Cahill	Date	November 7, 2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL

For FY 2005

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 250.00

Complete if Known

Application Number	10/753,113
Filing Date	January 7, 2004
First Named Inventor	Francisco J. Napolez
Examiner Name	Bret C. Hayes
Art Unit	3644
Attorney Docket No.	2973-A-34

METHOD OF PAYMENT (check all that apply)☒ Check ☐ Credit Card ☐ Money Order ☐ None ☒ Other (please identify):☒ Deposit Account Deposit Account Number: 03-0088 Deposit Account Name: Cahill, von Hellens &....

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below☐ Charge fee(s) indicated below, except for the filing fee☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17☒ Credit any overpayments

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FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	0
Design	200	100	100	50	130	65	0
Plant	200	100	300	150	160	80	0
Reissue	300	150	500	250	600	300	0
Provisional	200	100	0	0	0	0	0

2. EXCESS CLAIM FEES**Fee Description**

Each claim over 20 (including Reissues)

Fee (\$)	Small Entity Fee (\$)
50	25

Each independent claim over 3 (including Reissues)

200	100
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Multiple dependent claims

360	180
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Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
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- 20 or HP = x = 0

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
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- 3 or HP = x = 0

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims

Fee (\$)	Fee Paid (\$)
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3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
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- 100 = / 50 = (round up to a whole number) x = 0

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Fees Paid (\$)

0

Other (e.g., late filing surcharge): Appeal Brief

250.00

SUBMITTED BY

Signature	Registration No. 19,742	Telephone 602-956-7000
Name (Print/Type) William C. Cahill	(Attorney/Agent)	Date November 7, 2005

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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